THE FOLLOWING IS THE ENGLISH TRANSLATION OF THE ARTICLE 34 AMENDED SHEETS

(Pages 15-18)

REPLACED BY
AMD 34 AMDT

What is claimed is:

1. A mold-release agent for demolding moldings from molding tools during molding processes, where the mold-release agent is not mixed, prior to the molding process, with the polymeric material used to produce these moldings,
wherein
the mold-release agent comprises microparticles with a size of from 0.02 to 100 µm.

2. The mold-release agent as claimed in claim 1,
wherein
the microparticles have been selected from particles of silicates, minerals, metal oxides, metal powders, silicas, pigments, and/or polymers.

3. The mold-release agent as claimed in claim 1 or 2,
wherein
the microparticles have hydrophilic or hydrophobic properties.

4. The mold-release agent as claimed in any of claims 1 to 3,
wherein
the microparticles have hydrophobic properties as a result of treatment with a suitable compound.

5. The mold-release agent as claimed in any of claims 1 to 4,
wherein
the microparticles are nanostructured microparticles which have a fine structure with elevations with an aspect ratio greater than 1.

6. The mold-release agent as claimed in any of claims 1 to 5,
wherein
the mold-release agent comprises the microparticles suspended in a liquid.

7. The mold-release agent as claimed in claim 6,
wherein
the mold-release agent comprises the microparticles suspended in a liquid selected from alcohols, ketones, and ethers.

8. The mold-release agent as claimed in any of claims 1 to 7, suitable as a mold-release agent for demolding injection moldings from injection molds during the injection-molding process.

9. A process for producing moldings by the molding of molding compositions comprising polymeric compounds, using a mold-release agent as claimed in any of claims 1 to 8,
wherein
the mold-release agent is applied to a molding tool prior to a molding step, and then a molding step is carried out in which the microparticles from the molding tool are impressed into a surface of the molding produced.

10. The process as claimed in claim 9,
wherein
the particles are impressed into the surface of the molding only to an extent of not more than 90% of their diameter.

11. The process as claimed in claim 9 or 10,
wherein
the mold-release agent is applied to the molding tool by spraying.

12. The process as claimed in claim 11,
wherein
the mold-release agent is applied to the molding tool by applying, to the molding tool, a suspension which comprises microparticles and a solvent, and then evaporating the solvent.

13. The process as claimed in claim 11,
wherein
the mold-release agent is applied to the molding tool by applying an aerosol which comprises microparticles and a propellant gas.

14. The process as claimed in at least one of claims 9 to 13,
wherein
the microparticles used have an average particle diameter of from 0.02 to 100 µm.

15. The process as claimed in at least one of claims 9 to 14,

wherein
in the molding process use is made of a polymer or polymer blend based on polycarbonates, on poly(meth)acrylates, on polyamides, on polyvinyl chloride, on polyethylenes, on polypropylenes, on aliphatic linear or branched polyalkenes, on cyclic polyalkenes, on polystyrenes, on polyesters, on polyether sulfones, on polyacrylonitrile, or on polyalkylene terephthalates, on poly(trifluoroethylene), on poly(vinylidene fluoride), on poly(chlorotrifluoroethylene), on poly(hexafluoropropylene), on poly(perfluoropropylene oxide), on poly(fluoroalkyl acrylate), on poly(fluoroalkyl methacrylate), on poly(vinyl perfluoroalkyl ether), or on other polymers selected from perfluoroalkoxy compounds, poly(isobutene), poly(4-methyl-1-pentene), polyoxymethylenes, ABS, polyisoprene, polychloroisoprene, synthetic or natural rubber, polynorbornene in the form of homo- or copolymer, and mixtures of these.

16. The process as claimed in at least one of claims 9 to 15,
wherein
the molding process has been selected from injection molding, calendering, extrusion, sheet extrusion, thermoforming, and blow molding.

17. The process as claimed in claim 16,
wherein
the mold-release agent is applied to the inner surfaces of the injection mold, thermoforming mold, or blow mold during injection molding, thermoforming or blow molding, or to the surface of a molding roll during calendering, extrusion or sheet extrusion.

18. A molding with a surface which has self-cleaning properties and has surface structures with elevations, produced by a process as claimed in any of claims 9 to 17.

19. A molding produced using a mold-release agent as claimed in any of claims 1 to 8 to demold the molding from a mold.

20. The molding as claimed in claim 18 or 19, selected from vessels, lampshades, buckets, storage vessels, drums, dishes, measuring beakers, funnels, tanks, tires, and housing parts.

21. A tire produced using a mold-release agent as claimed in any of claims 1 to 8 for demolding the tire from the tire press after vulcanization.